

MCF 3M Opener

For the function;

$$f(x) = x^2 - 2x - 48$$

What are the zeros?

What is the axis of symmetry i.e. $x = ?$

What is the optimum point of this function?

Feb 11-3:37 PM

MCF 3M Opener

for the equation

$$f(x) = x^2 - 2x - 48$$

$$f(x) = (x+6)(x-8)$$

What are the zeros?

What is the axis of symmetry $x = ?$

What is the maximum/minimum of this equation? (Optimum pt)

$$f(x) = (1+6)(1-8) = -49 \quad (1, -49)$$

The minimum value is $y = -49$

Feb 11-3:37 PM

Review Find the Vertex

$$y = 2x^2 - 9x - 11$$

A/M

$$2x^2 + 2x - 11x - 11$$

$$2x(x+1) - 11(x+1)$$

$$(x+1)(2x-11)$$

$$-1 + 11/2 \Rightarrow -1 \quad 5.5$$

$$\frac{5.5}{2} = \frac{-1 + 5.5}{2} = \frac{4.5}{2} = 2.25 \quad x_v$$

$$f(x) = (x+1)(2x-11)$$

$$= (2.25+1)(2(2.25)-11)$$

$$= (3.25)(4.5-11)$$

$$= (3.25)(-6.5)$$

$$= -21.125$$

$$(2.25, -21.125)$$

$$f(x) = 3x^2 + 3x - 36$$

Sep 26-8:50 AM

$$f(x) = (2x-9)(x+4)$$

$$\frac{9}{2} \quad -4 \quad (4.5)$$

$$\frac{9}{2} = 4.5 \quad -4 = -4 \quad \frac{0.5}{2} = 0.25$$

$$f(x) = (2(0.25)-9)(0.25+4)$$

$$f(x) = (-8.5)(4.25)$$

$$f(x) = (-36.125)$$

$$f(x) = 3x^2 + 3x - 36$$

$$3(x^2 + x - 12)$$

$$3(x(x+4) - 3(x+4))$$

$$3(x+4)(x-3)$$

$$-4 \quad 3$$

$$-\frac{4+3}{2} = -\frac{1}{2} \quad (-0.5)$$

$$f(x) = 3(x+4)(x-3)$$

$$f(x) = 3(-0.5+4)(-0.5-3)$$

$$f(x) = 3(3.5)(-3.5)$$

$$f(x) = 3(-12.25)$$

$$f(x) = -36.75$$

$$(-0.5, -36.75)$$

plot 8.122

Sep 26-9:00 AM